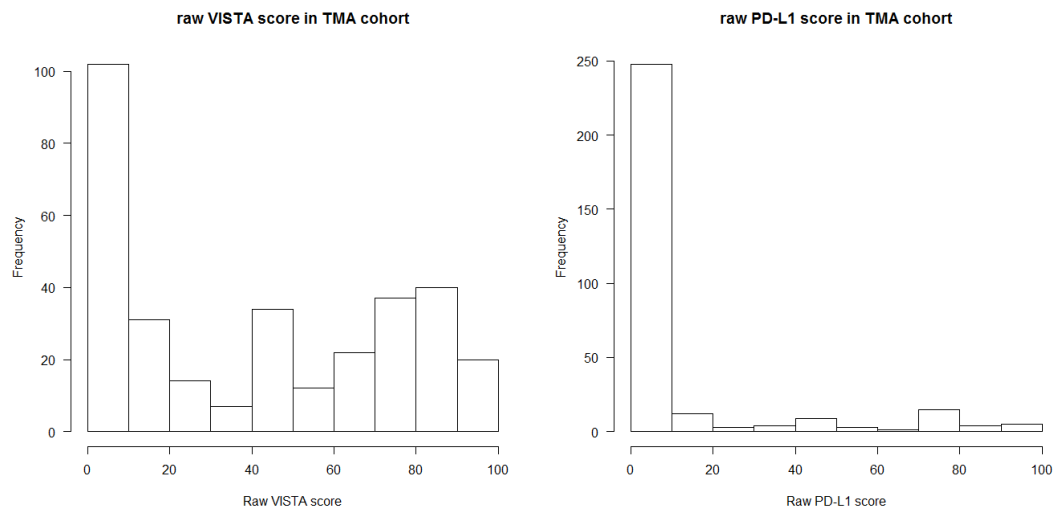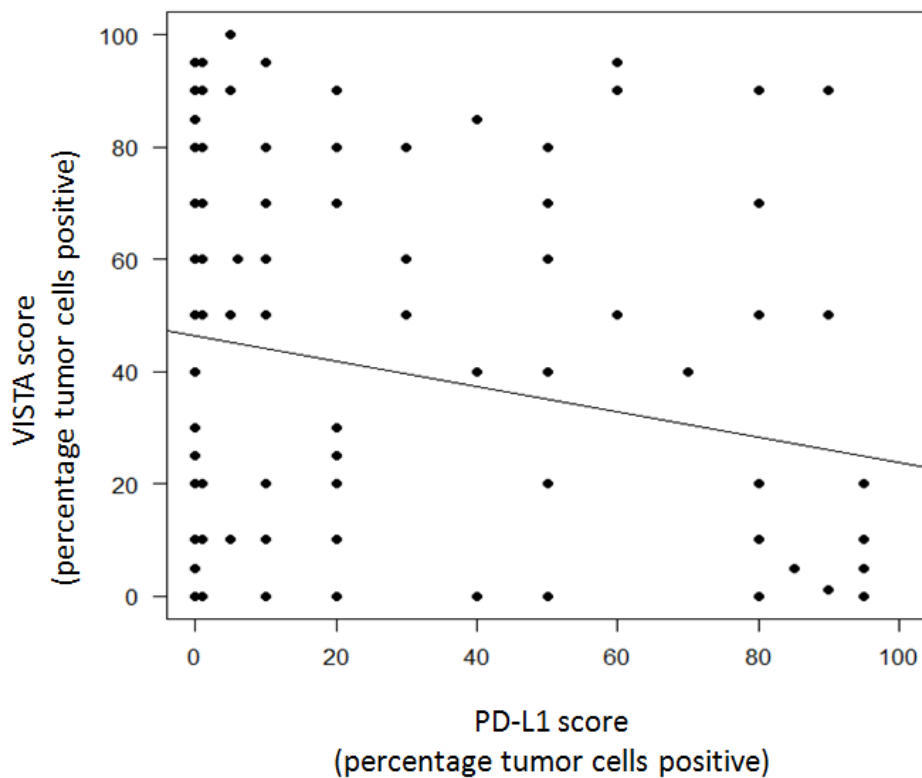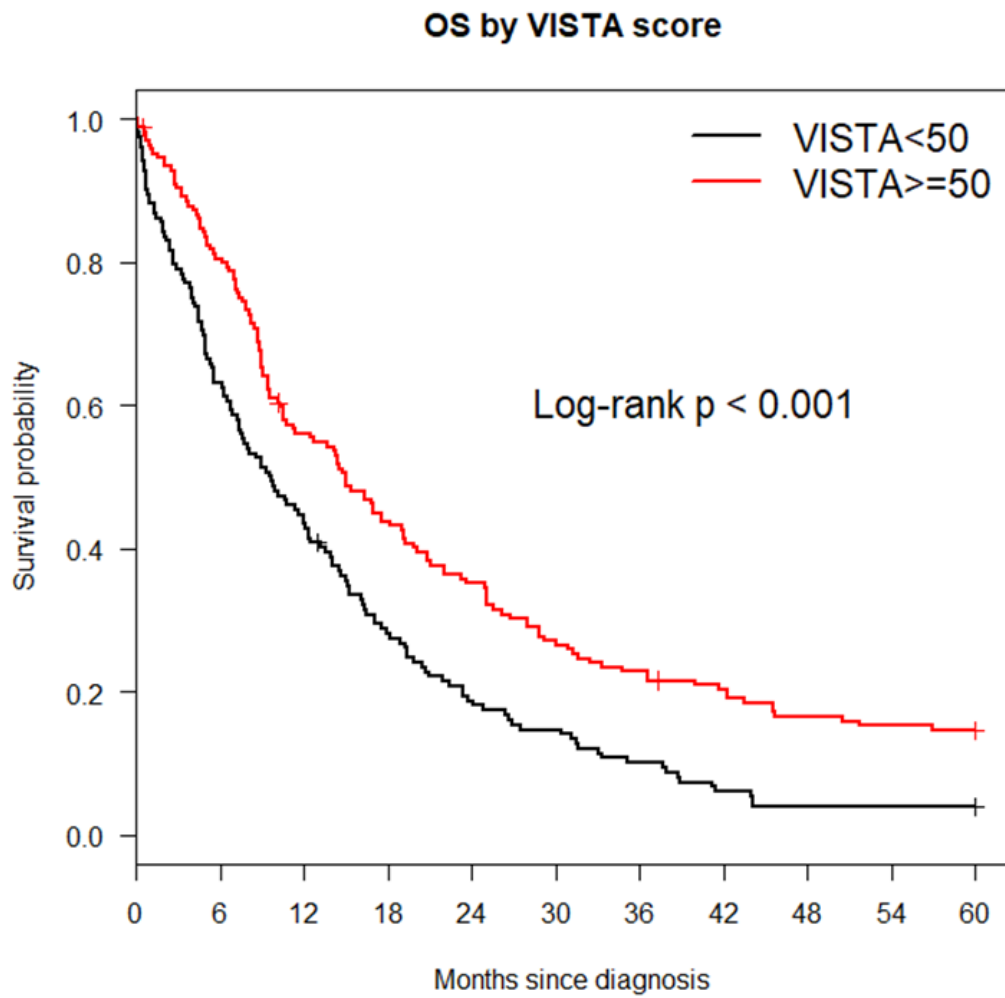## Supplemental Figures

Supplemental Figure (S1). Histograms of raw scores for VISTA (A) and PD-L1 (B) in MPM.

Supplemental Figure (S2). Expression of VISTA and PD-L1 by immunohistochemistry in MPM in 304 patients whose tumors had both VISTA and PD-L1 scores (A) Scatter plot of VISTA score versus PD-L1 score highlights inverse relationship between percentage of tumor cells positive for VISTA and PD-L1 in MPM (Pearson correlation coefficient $(r = -0.16; P=0.004)$.

OS by VISTA score

Supplemental Figure S3. MPM-specific cumulative incidence of death and overall survival comparing patients with tumors with high PD-L1 expression (≥ arbitrary cut off of 50%) versus patients with low PD-L1 expression (< arbitrary cut off of 50%).

Supplemental Tables

Supplemental Table 1. Two- and three-year overall survival probabilities for patients whose tumors express VISTA and PD-L1 above and below the optimal cut off values.

	VISTA ≤ 40%				VISTA > 40%			
	N remains	N died	OS	95% CI of OS	N remains	N died	OS	95% CI of OS
2 year	28	123	18.7%	13.4 to 26.1%	57	106	35.1%	28.5 to 43.3%
3 year	15	136	10.0%	6.2 to 16.2%	37	126	22.8%	17.2 to 30.2%

	PD-L1 ≤ 30%				PD-L1 >30%			
	N remains	N died	OS	95% CI of OS	N remains	N died	OS	95% CI of OS
2 year	76	183	29.5%	24.4 to 35.6%	4	37	9.8%	3.9 to 24.8%
3 year	46	213	17.8%	13.7 to 23.2%	3	38	7.3%	2.5 to 21.7%

Supplemental Table 2. Multivariate Cox proportional hazards model on overall survival using optimal cut off for high (≥ 40% tumor cells positive) and low expression (<40% tumor cells positive) of VISTA in MPM.

	Hazard ratio	95% CI of HR	P value*
VISTA (>=40% vs < 40%)	0.72	0.57 to 0.92	0.007
Histology			
Biphasic vs epithelioid	1.8	1.2 to 2.5	0.002
Sarcomatoid vs epithelioid	2.2	1.4 to 3.5	<0.001
Stage (4 vs 1-3)	1.4	1.0 to 2.0	0.032
Age	1.0	1.0 to 1.0	0.797
Sex (male vs female)	1.6	1.2 to 2.0	0.002

*without multiple comparison adjustment

Supplemental Table 3. Two- and three- year overall survival probabilities by PD-L1 score (arbitrary cut off of 50%).

	PD-L1 <50%				PD-L1 >=50%			
	N remains	N died	OS	95% CI of OS	N remains	N died	OS	95% CI of OS
2 year	76	187	29.0%	24.0 to 35.0%	4	33	10.8%	4.3 to 27.3%
3 year	46	217	17.6%	13.5 to 22.8%	3	34	8.1%	2.7 to 24.0%